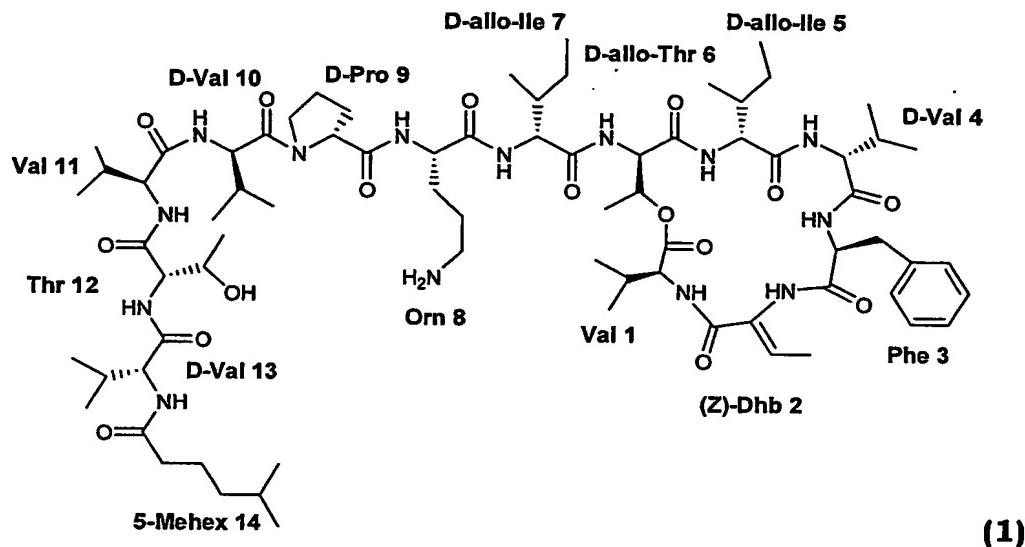


Claims

1. A compound based on the structures of kahalalide F and which differs in at least one respect.

2. A compound according to claim 1 of formula 1:



wherein one or more amino acids have been substituted by other natural or non natural amino acids, have been masked with organic groups or have been removed.

3. A compound according to claim 1 or claim 2, wherein the methylhexanoyl group has been substituted by another carboxyl group or has been removed.

4. A compound according to claim 1, wherein an amino acid in the cyclic part is different from that in kahalalide F

5. A compound according to claim 4, wherein the L-Phe at position 3 is changed.
6. A compound according to claim 5, wherein the amino acid at position 3 is a masked L-Phe.
7. A compound according to claim 5, wherein the amino acid at position 3 is a different natural amino acid or is a non-natural amino acid.
8. A compound according to any preceding claim wherein the L-Orn at position 8 is changed.
9. A compound according to claim 8, wherein the amino acid at position 8 is a masked L-Orn.
10. A compound according to claim 5, wherein the amino acid at position 8 is a different natural amino acid or is a non-natural amino acid.
11. A compound according to any preceding claim, wherein the sidechain is changed.

12. A compound according to claim 11, wherein the terminal acyl is changed.

13. A compound according to claim 12, wherein the terminal acyl is 4(S)-methylhexyl.

14. A compound based on the structure of kahalalide F of formula 1 designated KF, and selected from: [D-Thr⁶]-KF, [D-Ser⁶]-KF, [Glu⁸]-KF, [Lys⁸]-KF, [Val¹²]-KF, [D-Thr¹²]-KF, [D-Cha¹³]-KF, [hCh¹¹]-KF, [hCh¹¹, D-Cha¹³]-KF, [D-Cha⁴, D-Cha⁵, D-Cha⁷]-KF, [D-Val⁵, D-Val⁷]-KF, [Icos¹⁴]-KF, [(c/t)-4-Me-cHexa¹⁴]-KF, [Und¹⁴]-KF, [(4R)-MeHex¹⁴]-KF, [(4RS)-MeHex¹⁴]-KF, [Oct¹⁴]-KF, [p-MeBza¹⁴]-KF, [Bza¹⁴]-KF, [p-CF₃Bza¹⁴]-KF, [3,5-dFPhAc¹⁴]-KF, [Pipe¹⁴]-KF, [p-CF₃Cinn¹⁴]-KF, [p-CF₃PhAc¹⁴]-KF, [Pfh¹⁴]-KF, [6-OHep¹⁴]-KF, [6,6-dFHep¹⁴]-KF, [4-GuBut¹⁴]-KF, [Lys⁸, (4S)-MeHex¹⁴]-KF, [noVal¹¹, noThr¹², noD-Val¹³]-KF, [noVal¹¹, noThr¹², noD-Val¹³, Mst¹⁴]-KF, [Gly¹³]-KF, [D-Ala¹³]-KF, [D-Leu¹³]-KF, [D-Phe¹³]-KF, [D-Pro¹³]-KF, [Val¹³]-KF, [D-Glu¹³]-KF, [D-Gln¹³]-KF, [D-Thr¹³]-KF, [Gly¹¹]-KF, [Phe¹¹]-KF, [Ala¹¹]-KF, [Leu¹¹]-KF, [D-Val¹¹]-KF, [Pro¹¹]-KF, [Gln¹¹]-KF, [Orn¹¹]-KF, [Thr¹¹]-KF, [Glu¹¹]-KF, [Ala¹², noD-Val¹³]-KF, [Gly¹², noD-Val¹³]-KF, [Leu¹², noD-Val¹³]-KF, [Pro¹², noD-Val¹³]-KF, [Glu¹², noD-Val¹³]-KF, [Orn¹², noD-Val¹³]-KF, [Gln¹², noD-Val¹³]-KF, [Pro⁹, (4S)-MeHex¹⁴]-KF, [D-Pip⁹, (4S)-MeHex¹⁴]-KF, [D-Tic⁹, (4S)-MeHex¹⁴]-KF, [(5R)-Ph-Pro⁹, (4S)-MeHex¹⁴]-KF, [hCh³]-KF, [D,L-Ser²]-KF, [Gly²]-KF, [Aib²]-KF, [Dha²]-KF, [Trp³]-KF, [D-Val¹, D-Phe³, Val⁴, allo-Ile⁵, allo-Thr⁶, allo-Ile⁷, D-Orn⁸, Pro⁹, Val¹⁰, D-Val¹¹, D-Thr¹², Val¹³]-KF, [Phe(3,4-Cl₂)³, (4S)-MeHex¹⁴]-KF, [Phe(F₅)³, (4S)-MeHex¹⁴]-KF, [Phe(4-I)³, (4S)-MeHex¹⁴]-KF, [Phe(4-NO₂)³, (4S)-MeHex¹⁴]-KF, [Phe(4-F)³, (4S)-MeHex¹⁴]-KF,

[Tyr(Me)³, (4S)-MeHex¹⁴]-KF, [Thi³, (4S)-MeHex¹⁴]-KF, [Tic³, (4S)-MeHex¹⁴]-KF, [Tyr³, (4S)-MeHex¹⁴]-KF, [Oic³, (4S)-MeHex¹⁴]-KF, [NMePhe³, (4S)-MeHex¹⁴]-KF, [Phe(2-Cl)³]-KF, [Phe(3-Cl)³]-KF, [Phe(4-Cl)³]-KF, [Phe(3,4-F₂)³]-KF, [NaI³]-KF, [Bip³]-KF, [Phg³]-KF, [Phe(3,4-Cl₂)³, p-CF₃Cinn¹⁴]-KF, [N(Me)₂,N'(Me)₂-Arg⁸]-KF, [N(Me,Ph),N'(Me)₂-Arg⁸]-KF, [N(CH₂)₄,N'(Me)₂-Arg⁸]-KF, [N(CH₂)₄,N'(CH₂)₄-Arg⁸]-KF, [Nδ(CHN(CH₂)₄-N'(CH₂)₄)-Orn₈]-KF, [Nε(Me)₃-Lys⁸, (4S)-MeHex¹⁴]-KF, [Thr(OTFA)¹², (4S)-MeHex¹⁴]-KF, [Orn(NδTFA)⁸, Thr(OTFA)¹², (4S)-MeHex¹⁴]-KF, [Orn(NδTFA)⁸, (4S)-MeHex¹⁴]-KF, [Thr(OTFA)¹², Lit(OTFA)¹⁴]-KF, [no 5-MeHex¹⁴, N(Hep)₂-Val¹³]-KF, [Orn(Biot)⁸]-KF, [L-Val-d₈¹¹]-KF, [AM¹⁴]-KF, [AO¹⁴]-KF, [C(=N(CH₃)₂)¹⁴]-KF, [D-Ile⁷]-KF, [D-Val⁷]-KF, [D-Orn⁸, L-Pro⁹]-KF, [D-Cys⁷, L-Cys¹¹]-KF, [D-Cys⁷, D-Cys¹⁰]-KF, [D-homoCys⁷, D-homoCys¹⁰]-KF, [Gly¹²]-KF, [Ala¹²]-KF, [Leu¹²]-KF, [Phe¹²]-KF, [Glu¹²]-KF, [Orn¹²]-KF, [Pro¹²]-KF, [D-Orn¹³]-KF, [Gln¹²]-KF and [D-Val¹¹]-KF,

wherein the amino acid or group indicated between brackets is the modification introduced in the structure of kahalalide F.